DOCUMENT RESUME

ED 259 746 IR 051 191

AUTHOR	Mahon, F. V.
TITLE	Information Network Development.
INSTITUTION	International Bureau of Education, Geneva (Switzerland).
REPORT NO	UNESCO/BIE/DOCINE/Inf.5
PUB DATE	May 85
NOTE	6p.; Paper presented at the Meeting of Experts in Educational Documentation and Information (Geneva, Switzerland, May 20-24, 1985). For related documents, see IR 051 190-196.
PUB TYPE	Guides - General (050) -- Viewpoints (120) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Developed Nations; Developing Nations; Information Dissemination; *Information Networks; Information Science; *Information Systems; *International Organizations; *International Programs; Models; Program Implementation; Standards; *Systems Development
IDENTIFIERS	Educational Information; *International Network Educational Information

ABSTRACT

The International Bureau of Education (IBE) and Unesco, together with their member states, are faced with the task of implementing a proposed network--the International Network for Educational Information (INED)--for the better use of information resources for educational development. This review of issues that need to be considered in the development of such an international network includes a statement of the main purpose of a network; brief descriptions of four models for different types of networks (centralized, decentralized, cooperative, and coordinated); a discussion of the importance of compromise and flexibility in networks; a description of the management role in providing a structure for the network; some suggestions for planning user services and marketing; a review of issues involved in the selection of appropriate hardware and software; an outline of seven phases of the implementation process and some necessary inputs; and a brief description of the roles IBE and Unesco will play as coordinators of the network. (BBM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED259746

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Distribution: limited

UNESCO/BIE/DOCINF/Inf. 5
Geneva, May 1985
Original: English

UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

INTERNATIONAL BUREAU OF EDUCATION

MEETING OF EXPERTS IN EDUCATIONAL
DOCUMENTATION AND INFORMATION

International Conference Centre
Geneva, 20-24 May 1985

INFORMATION NETWORK DEVELOPMENT

By F.V. Mahon, EURONET

IR051191

Reproduced by permission of

Unesco

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Suzanne Adlung

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

0. INTRODUCTION

The IBE and UNESCO, with their Member States are faced with the task of implementing a proposed network for the better use of information resources for educational development.

This paper is a, necessarily brief, given the time and resources available for its preparation, review of the principle topics which need to be considered in order to achieve the above objective.

It is hoped during the course of the meeting to elaborate on the topics raised here in the light of specific questions/problems raised and to give the benefit of the authors experience in the development of an international information network.

The basis for the following is taken from the suggested Work Plan for the experts meeting as outlined at a preparatory meeting in Geneva on 25-26 February 1985.

I. NETWORKS AND THEIR MANAGEMENT

The main purpose of a network is to provide a mechanism for sharing the resources for the benefit of all participants and their clients.

A number of models exist for different types of networks:

- Centralised; all resources are distributed to participants from a single source

- Decentralised; a number of participants agree to common standards so that all participants can use the resources equally

- Cooperative; a number of participants (or all) agree to cooperate in making available their resources to others

- Coordinated; a number of participants agree to coordinate the development of their resources so that duplicata etc is minimised.

Not all of the above models are mutually exclusive. It is a truism of modern information developments that networking developes after a certain amount of activity has already been established. Therefore a successful network involves some level of compromise between participants in order to achieve the desired results.

This compromise is an essential component of development of a network and it must be understood by all participants that compromises will be necessary. Given the normal human failings each participant must feel that in making the compromises there is ultimate advantage to be gained from participation.

The net result is that to be successful a network must be flexible. This is particularly true of the adoption of standards for its operation. In many cases too much emphasis is placed on the need for rigorous adherence to standards as a prerequisite to network development. A more realistic approach is to aim for minimum standards which will enable operations to commence and a regular examination of where improvements/extensions to standards are needed.

This latter function will be the principle role of the management. While the detailed work may be carried out by individual participants the management role will be to provide a motivation, policy and operations structure for the network. The management will obviously consist of representatives of the participants and will have a number of levels. The main purpose of the management structure is to provide continuity and a spirit of interdependance.

II. USERS AND SERVICES

The ultimate objective of a network is to use the resources available to provide services to users. To do this it must first of all know what users want. This is not to be interpreted as meaning that elaborate surveys of user needs should be instituted as a priority. An intelligent assessment of what is presently available and used together with a rational appraisal of what is presently demanded but not supplied should provide a sufficient basis for initial actions.

In many cases it is found that users or potential users are not aware of what is available and make unreasonable demands based on this ignorance. Therefore, a priority action of the network should be a programme of awareness to alert users and potential users to the facilities. This is not necessarily to be achieved by simple publications of holding lists or resources inventories but by pragmatic examples of what kinds of questions can reasonably be answered by the resources available. This of course means that the network management does have available to it an overview of the resources available. It also means that there is available comprehensive information on users and potential users to whom the awareness can be directed.

Based on this initial action, which will in course of time become continuous as new users are identified, indicators may be obtained of gaps in service provision and the necessary management decisions taken on how to fill these gaps.

Ancillary to the above will be a programme of education designed to acquaint users with how to get the best results from the resources. Given the inevitable differences in the level of development between the different user populations this programme will have to take account of the available infrastructure in the environment of the users.

Such marketing actions will have to make use of the widest possible range of media - printed, visual and oral presentations. An important sub-activity here will be ensuring coherence in the messages being transmitted to the different audiences.

III. TECHNOLOGY AND SYSTEMS

There is a widely held belief that modern technology is essential to the proper development of a network. While modern information handling technologies can obviously provide significant advantages in dealing with the problems of large volumes of information they must always be seen as supportive to the main purpose - the sharing of resources. Therefore technology has to be appropriate to the objectives. This is not to be taken in the sense of appropriate technology in the context of developed and developing worlds but as a plea to see technology as a useful additional tool for the achievement of certain objectives.

It will inevitably be found that technologies of various types are already being used by participants for various functions. The main emphasise will be to achieve the necessary compatibility between these uses of technology when appropriate. In terms of the technologies for transmission of information these compatibilities will have in many cases already been achieved by international telecommunications agencies for example. The task then will be to achieve the necessary adaptations and that the transmission technologies can be used efficiently. It is at this point that the agreement on minimum standards will prove useful.

It is inevitable that technology will provide a greater range of options for efficient information handling in the future. Therefore a significant management role will be to decide on the priorities for future applications of technologies. Given the widespread nature of the field of education it is not realistic to try to achieve rigid harmonisation of hardware and software. Agreement on functions to be achieved by the use of information technologies will be most important so that the necessary modifications/adaptations can be carried out on the different hardware and software.

IV. IMPLEMENTATION

The implementation of the network will be carried out in phases which should roughly approximate to the following:

A. Identification of shareable resources and objectives
B. Identification/Sensitisation of user populations
C. Agreement on appropriate management structure
D. Agreement on pilot activities
C. Development of mechanisms for internal information (managment information)
D. Development of training/education for both participants and users
F. Medium and Long Term Planning.

All of the above will require the following inputs:

- Committment of resources (financial and manpower) by participants

- Agreement and committment to the objectives

- Agreement of minimum operating standards

- Mutual understanding of problems/limitations.

V. ROLE OF IGO's

IBE and UNESCO will have the role of coordinators in any network. This is not necessarily because they are the primary resource suppliers, although in the case of IBE the resources are very significant, but because by their very existence they are in touch with a wide range of possible participants.

IBE will certainly play an important role in the coordination of resources from the information supply side. UNESCO will more than likely act as coordinator between INED and other networks because there are many common features. In addition both IBE and UNESCO will have an important role to play in encouraging education, training and marketing.